

## **APPENDIX 5. CLARIFICATIONS TO STANDARD PRACTICES, BMPs, AND GUIDELINES FOR SURFACE DISTURBING ACTIVITIES**

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This appendix describes the practices utilized to mitigate adverse effects caused by surface disturbing activities. The information in this appendix clarifies the information provided in the final Environmental Impact Statement (EIS), including Appendix 4, Appendix 5, and Appendix 6. The information published with the final EIS for Appendix 5 and portions of Appendix 6 has not been reprinted in the Coordinated Activity Plan (CAP). These appendices, or in the case of Appendix 6 of the final EIS a portion of the appendix, are incorporated by reference and are available in the final EIS or may be obtained from the BLM Rock Springs Field Office. Appendix 4 of the final EIS has been reprinted with the CAP.

Standard practices may develop through the National Environmental Policy Act (NEPA) process into stipulations prior to lease or grant issuance, or they may serve as a basis for mitigation or Conditions of Approval (COAs). If these practices (or newly developed techniques) are already incorporated into project proposals, they may be approved without the addition of any mitigation or COAs.

Best management practices (BMP) are construction and mitigation practices that are generally recognized to be effective at minimizing impacts. They may be common practices used every day, or they may be unique applications for special situations. They may be required by regulation or used at the discretion of the agency or project proponent.

This appendix also contains clarifications of management practices for managing greater sage-grouse and their habitats. These practices include overall habitat considerations and mitigation for surface disturbing and disruptive activities.

### **BEST MANAGEMENT PRACTICES**

#### **Oil and Gas**

##### **Best Management Practices for Applications for Permit to Drill and Associated Rights-of-Way**

In June 2004 the Bureau of Land Management (BLM) provided direction for incorporating BMPs into Applications for Permit to Drill (APDs), rights-of-way (ROWs), and oil and gas operations by issuing Instruction Memorandum 2004-194. This Instruction Memorandum established a policy directing field offices to consider BMPs in NEPA documents to mitigate anticipated impacts to surface and subsurface resources and also to encourage operators to actively consider BMPs during the application process.

BMPs to be considered in nearly all circumstances include the following:

- Interim reclamation of well locations and access roads soon after the well is put into production

- Painting of all new facilities in a color which best allows the facility to blend with the background, typically a vegetated background
- Design and construction of all new roads to a safe and appropriate standard, “no higher than necessary” to accommodate their intended use
- Final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour which blends with the surrounding topography.

Other BMPs are more suitable for field office consideration on a case-by-case basis depending on their effectiveness, the balancing of increased operating costs versus the benefit to the public and resource values, the availability of less restrictive mitigation alternatives, and other site-specific factors. Examples of typical case-by-case BMPs include, but are not limited to, the following:

- Installation of raptor perch avoidance
- Burying of distribution power lines and/or flow lines in or adjacent to access roads
- Centralizing production facilities
- Submersible pumps
- Belowground wellheads
- Drilling multiple wells from a single pad
- Noise reduction techniques and designs
- Wildlife monitoring
- Seasonal restriction of public vehicular access
- Avoiding placement of production facilities on hilltops and ridgelines
- Screening facilities from view
- Bioremediation of oilfield wastes and spills
- Use of common utility or ROW corridors.

A frequently updated menu of typical BMPs can be found on the BLM Washington Office Fluid Minerals website ([www.blm.gov/bmp](http://www.blm.gov/bmp)).

Also, in February 2005 BLM issued guidance on considering compensatory (offsite) mitigation for authorizations issued by BLM in the oil, gas, geothermal, and energy ROW programs (IM 2005-069). BLM will approach compensatory mitigation on an “as appropriate” basis where it can be performed onsite, and on a voluntary basis where it is performed offsite.

## **Clarifications for General Oil and Gas Development**

### **Process Overview**

These procedures are described using terminology specific to oil and gas lease stipulations and related development activities; however, the same procedures apply for all surface disturbing and disruptive activities. See Appendix 7 for a discussion of lease stipulations for greater sage-grouse and other resources.

## **GENERAL MANAGEMENT PRACTICES**

### **Rationale for Controlled Surface Use (CSU) Restrictions**

CSU restrictions prohibit or limit surface use for the protection of specific resources, including specific wildlife habitat areas or values within the use area which cannot be sufficiently protected using only seasonal restrictions. These areas and values include factors that limit life cycle activities, such as breeding grounds (leks, nesting sites, and early brood-rearing areas) and winter concentration areas. Surface disturbing and other disruptive activities include, but are not limited to, energy exploration, energy development, excavation for recovery of cultural site information, reclamation activities, and, potentially, maintenance and operation of facilities.

### **Rationale for Conditions of Approval (COA)**

If necessary, site-specific mitigations are added to the APD for protection of surface and/or subsurface resource values in the vicinity of the proposed well. Regulations in 43 CFR 3101.1-2 authorize BLM to relocate proposed operations up to 200 meters and delay operations for a period of 60 days without further NEPA or other analysis. BLM is responsible for preparing the environmental documentation necessary to satisfy the NEPA requirements and for providing any mitigation measures (COAs) needed to protect the affected resource values. COAs such as the timing, reduction, or relocation of disturbances may be utilized to ensure the protection of resources where a NEPA analysis determines the mitigation to be needed. Exceptions to COAs are considered following the same steps outlined for exception to oil and gas lease stipulations. The need for a COA must be documented in a site-specific analysis, and this analysis must be based on appropriate science, providing the necessary justification for required mitigation.

COAs, such as those designed for the reduction or relocation of disturbances, may be utilized to ensure the protection of greater sage-grouse and their habitat. Exceptions to COAs would be considered following the same steps outlined for exception to lease stipulations (Appendix 7).

## **MANAGEMENT PRACTICES FOR GREATER SAGE-GROUSE (WYOMING BLM SENSITIVE SPECIES)**

Although these management practices and those described in Appendix 6 of the final EIS were developed prior to issuance of the BLM “National Sage-Grouse Habitat Conservation Strategy” (USDI 2004b), they are in agreement with the Strategy. More specifically, the BLM National Sage-Grouse Strategy is based on the following four main goals. (Associated with each goal are specific strategies and actions that BLM will undertake to meet the goal.)

1. Improve the effectiveness of the management framework for addressing conservation needs of greater sage-grouse on lands administered by BLM.
2. Increase understanding of resource conditions to prioritize habitat maintenance and restoration.

3. Expand partnerships, available research, and information that support effective management of greater sage-grouse habitat.
4. Ensure leadership and resources are adequate to continue ongoing conservation efforts and implement national and state-level greater sage-grouse habitat conservation strategies and/or plans.

The purpose of the comprehensive National Sage-Grouse Strategy is to set general goals and objectives, assemble general guidance and resource materials, and provide a comprehensive management direction for BLM's contributions to the ongoing multistate greater sage-grouse conservation effort in cooperation with the Western Association of Fish and Wildlife Agencies (WAFWA). The WAFWA guidelines are found in "Guidelines to Manage Sage Grouse Populations and Their Habitats" (Connelly et al. 2000). See the "BLM National Sage-Grouse Habitat Conservation Strategy" (USDI 2004b) for more guidance on management practices for greater sage-grouse. The National Sage-Grouse Strategy does not decide or dictate the management practices that may be used to address greater sage-grouse concerns but provides general guidelines for consideration.

These management practices are intended to address only the concerns with greater sage-grouse. It is assumed that other species and resources will be analyzed with any management proposal and that management of all resources affected will be considered consistent with the BLM multiple-use mandate.

## **Oil and Gas Development in Greater Sage-Grouse Habitat**

### **Methodology**

Field reviews will be conducted prior to any surface disturbing or disruptive activities in greater sage-grouse lek, nesting/early brood-rearing, or winter concentration areas. In addition, field reviews may also take place prior to issuing an oil and gas lease in these restricted areas. Prelease field reviews may be necessary to identify the actual habitat(s) prior to sale of a lease within the planning area.

Habitat identification includes consideration of the factors identified in Appendix 6 of the final EIS, vegetation composition, height, and cover necessary to support greater sage-grouse life cycle activities. Based on Wyoming studies, productive nesting/early brood-rearing habitat are usually represented by 15 to 25 percent canopy cover of big sage with a height of 12 to 32 inches, a perennial grass and forb component with greater than 13 percent canopy cover greater than 7 inches in height, and a residual grass cover greater than 3 percent and between 4 and 5 inches in height. For more explanation, see Table 3-14 in the final EIS (USDI 2004a). Residual herbaceous cover should exceed 4 inches in height and compose greater than 3 percent canopy cover (Heath et al. 1996, Heath et al. 1997, Holloran 1999, Lyon 2000).

Sagebrush and herbaceous cover provide overhead as well as lateral concealment from predators in nesting/early brood-rearing areas. If the average sagebrush height is greater than 30 inches, herbaceous cover may need to be substantially greater to provide the necessary security. As new information is obtained on habitat delineation, this section may be updated to reflect new or modified factors to use in habitat identification.

## Exceptions

Exception from CSU requirements developed from this guideline must be based on site-specific analysis of proposals (e.g., activity plans, plans of development, plans of operation, and APDs). This analysis will occur on a case-by-case basis and include consideration of exception criteria as well as coordination with the Wyoming Game and Fish Department (WGFD) and U.S. Fish and Wildlife Service (USFWS) where appropriate (also Appendix 7).

Upon request, exceptions could be considered for some short-term disturbances if the disruptive activity is temporary, does not affect the birds during sensitive time periods (subject to seasonal constraints), and does not adversely affect the use of the habitat by greater sage-grouse.

## Modifications and Waivers

Modification of lease stipulations or permanent waivers of lease stipulations are analyzed and approved or denied by the Authorized Officer (AO) at the State Office. These actions require a separate NEPA analysis.

## Mitigation for All Permitted Uses (other than oil and gas) in Greater Sage-Grouse Habitat, Conditions of Surface Use, Timing Limitations, and Criteria for Exception

Activities or projects in sensitive wildlife habitats will contain surface use restrictions or timing mitigation for the protection of wildlife. In those cases where the NEPA analysis determines that CSU and/or timing mitigations are necessary, but are not contained within an existing plan/proposal, mitigation will be developed and applied to the activity. The need for a mitigation measure must be documented in a site-specific analysis. This analysis must be based on appropriate science, providing the necessary justification for required mitigation. For information relating to the application of oil and gas stipulations in greater sage-grouse habitat, see Appendix 7. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required (see also Appendix 4).

## Examples of Mitigation for Controlled Surface Use (CSU)

<b>Resource:</b>	Greater sage-grouse leks.
<b>Mitigation:</b>	CSU. Surface occupancy or use (water wells, power lines, storage tanks, fences, etc.) on or within 1/4-mile of the perimeter of leks is prohibited, unless anticipated adverse impacts can be adequately mitigated.
<b>Objective:</b>	To protect greater sage-grouse leks.
<b>Exception:</b>	The AO may grant an exception for a proposed action if site-specific analysis determines the proposed action would not impair the use, function, or utility of the site for current or future mating activities. Example: some linear disturbances may not impair the function or utility of the site, and if the action does not adversely affect the use of the habitat by the greater sage-grouse, the exception could be granted.

<b>Modification:</b>	The boundaries of the mitigation area may be modified by the AO if WGFD determines that portions of the area no longer contain greater sage-grouse lek(s) and are not within 1/4-mile of the lek perimeter.
<b>Waiver:</b>	This mitigation may be waived by the AO if WGFD determines that the entire project area no longer contains greater sage-grouse lek(s).
<b>Resource:</b>	Greater sage-grouse nesting/early brood-rearing habitat.
<b>Mitigation:</b>	CSU. Surface occupancy or use is restricted or prohibited unless anticipated adverse impacts can be adequately mitigated. Example: the action would not impair the function or utility of the site and does not adversely affect the use of the habitat by the greater sage-grouse.
<b>Objective:</b>	To protect suitable nesting and early brood- rearing habitat.
<b>Exception:</b>	The AO may grant an exception if a site-specific analysis determines that the action, as proposed or conditioned, would not impair the use, function, or utility of the site.
<b>Modification:</b>	The boundaries of the mitigation area may be modified by the AO if WGFD determines that portions of the area no longer contain greater sage-grouse nesting and early brood-rearing habitat.
<b>Waiver:</b>	This mitigation may be waived by the AO if WGFD determines that the entire leasehold no longer contains greater sage-grouse nesting and early brood-rearing habitat.
<b>Resource:</b>	Greater sage-grouse winter concentration areas.
<b>Mitigation:</b>	CSU. Surface occupancy or use is restricted or prohibited unless anticipated adverse impacts can be adequately mitigated.
<b>Objective:</b>	To protect greater sage-grouse winter concentration areas.
<b>Exception:</b>	The AO may grant an exception for a proposed action if site-specific analysis determines the proposed action would not impair the function or utility of the site for winter use by greater sage-grouse. Example: the action would not impair the function or utility of the site, and the action does not adversely affect the use of the habitat by the greater sage-grouse.

**Modification:** The boundaries of the mitigated area may be modified by the AO if WGFD determines that portions of the area no longer contain greater sage-grouse winter concentration areas (habitat).

**Waiver:** This mitigation may be waived by the AO if WGFD determines that the entire leasehold no longer contains greater sage-grouse winter concentration areas (habitat).

### Examples of Mitigation for Timing Limitations

See also Appendix 4 for more information.

Application of these limitations to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects provided for under NEPA (1969).

**Resource:** Breeding greater sage-grouse.

**Mitigation:** Timing Limitation. No disruptive activities are allowed on occupied leks, or within 1/4-mile of the perimeter of leks, from March 1 to May 15 between the hours of 8 p.m. through 8 a.m. daily.

**Objective:** To maintain use of the lek by greater sage-grouse.

**Exception:** The AO may grant an exception if a site-specific analysis determines that the action, as proposed or conditioned, would not adversely affect attendance on the lek during the mating season. Example: Depending on weather conditions, occupancy by the birds, or conditions that preclude occupancy by the birds, an exception for use in greater sage-grouse leks could be granted, or the time of year or time of day mitigation extended dependent on local conditions.

Weather conditions may alter the actual times the area is used by the birds. Cloudy or foggy weather may cause the greater sage-grouse to strut longer in the day while bright, and moonlit nights could provide an opportunity for strutting before dawn. The actual timing of this mitigation can be modified depending on weather conditions, such as fog and cloudy conditions or clear, bright moonlit nights.

**Modification:** The boundaries of the mitigation times or dates may be modified by the AO if, after consultation with WGFD, the AO determines that modifying the dates or time of day would not adversely impact greater sage-grouse breeding activities.

<b>Waiver:</b>	This mitigation may be waived by the AO if WGFD determines that the entire leasehold no longer contains greater sage-grouse lek(s).
<b>Resource:</b>	Nesting/early brood-rearing greater sage-grouse.
<b>Mitigation:</b>	Timing Limitation. No disruptive activities are allowed in greater sage-grouse nesting/early brood-rearing habitat from March 15 to July 15.
<b>Objective:</b>	To protect greater sage-grouse during nesting/early brood-rearing.
<b>Exception:</b>	The AO may grant an exception if a site-specific analysis determines that the action, as proposed, mitigated, or conditioned, does not adversely affect nesting or early brood-rearing success. Exceptions could be granted for areas not containing vegetation suitable for nesting/early brood-rearing, provided the actual nesting/early brood-rearing areas are not affected. For example: biologists conducting the field review find the location is in the middle of a greasewood flat. This would not be suitable nesting habitat for greater sage-grouse, so an exception to the mitigation may be granted.

**Specific criteria include—**

- Habitat condition and availability.
  - a. Amount of shrub cover
  - b. Amount of residual grass cover
  - c. Whether or not there is adequate cover and forage immediately available and accessible nearby that is not being used.
- Site location.
  - a. Likelihood of animals habituating to the activity (for example: birds may habituate to a single pickup truck going into an area on a regular basis, but would not habituate to very loud noises or fast heavy traffic)
  - b. Proportion of nesting/early brood-rearing habitat affected
  - c. Location of site within the nesting/early brood-rearing habitat
  - d. Whether there is other activity in the area and whether it is likely to increase the cumulative adverse impact
  - e. Juxtaposition to burns or other habitat alterations that decrease the available sagebrush.



- Timing
  - a. Early in breeding season
  - b. Nearing end of the breeding season
  - c. Kind and duration of disruptive activity expected
  - d. How much remains of the breeding season when the activity is likely to occur.

**Modification:** The boundaries of the mitigation times or dates may be modified by the AO if, after consultation with WGFD, the AO determines that modifying the dates would not adversely impact greater sage-grouse nesting/early brood-rearing activities.

**Waiver:** This mitigation may be waived by the AO if WGFD determines that the entire leasehold no longer contains greater sage-grouse nesting/early brood-rearing activities.

**Resource:** Wintering greater sage-grouse.

**Mitigation:** Timing Limitation. Disruptive activities are prohibited in greater sage-grouse winter concentration areas from November 15 through March 14.

**Objective:** To protect wintering greater sage-grouse.

**Exception:** The AO may grant an exception if a site-specific analysis determines that the action, as proposed, mitigated, or conditioned, does not adversely affect wintering greater sage-grouse.

**Modification:** The mitigation dates may be modified by the AO if, after consultation with WGFD, the AO determines that modifying the dates would not adversely impact wintering greater sage-grouse.

**Waiver:** This mitigation may be waived by the AO if WGFD determines that the entire leasehold no longer contains winter habitat for greater sage-grouse.

**Specific criteria include—**

- Weather severity.
  - a. Snow conditions (depth, crusting, longevity)
  - b. Seasonal weather patterns
  - c. Wind chill factors (indication of animals' energy use)

- d. Air temperatures and variation
  - e. Duration of condition
  - f. Forecasts (long-range for duration of winter).
- Habitat condition and availability.
  - a. Animal density (high or low)
  - b. Forage condition (good or poor; amount of new leader growth)
  - c. Competition (livestock and/or wildlife)
  - d. Forage availability (canopy cover above snow and sagebrush on exposed south- and/or west-facing slope and windswept ridges)
    - Amount of forage
    - Snow depth
  - e. Whether grazing has decreased available winter forage
  - f. Whether or not there is suitable and ample forage immediately available and accessible nearby that is not being used.
- Site location.
  - a. Likelihood of animals habituating to the activity (for example: birds may habituate to a single pickup truck going into an area on a regular basis, but would not habituate to very loud noises or fast heavy traffic)
  - b. Presence of thermal cover, wind cover, and other such factors
  - c. Proportion of winter range affected
  - d. Location of site within the winter range
  - e. Whether there is other activity in the area and whether it is likely to increase the cumulative adverse impact
  - f. Juxtaposition to burns or other habitat alterations that decrease the available sagebrush.
- Timing.
  - a. Early in winter season
  - b. Nearing end of winter season
  - c. Kind and duration of disruptive activity expected
  - d. How much remains of the winter when the activity is likely to occur.